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ICMR Advises 'Pool Testing' of Covid-19

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Why in News

The **Indian Council of Medical Research (ICMR)** has advised the feasibility of using **pooled samples** for molecular testing of **Covid-19** citing the **rise of cases in India**.

The advisory also stated that it is important to increase the number of tests being done in laboratories in India.

Pool Testing

- A pooled testing algorithm involves the **Polymerase Chain Reaction (PCR)** screening of a specimen pool **comprising multiple individual patient specimens, followed by individual testing (pool de-convolution)** ONLY IF a **pool screens positive**.
- As all individual samples in a negative pool are regarded as negative, it results in **substantial cost savings** when a large proportion of pools tests negative.
- This method is effective in two ways. First, it **increases the capacity of testing** and second, it **saves a lot of resources — time, cost and manpower**.

Advisory

- **Maximum Number of Samples:** Pooling of more than 5 samples is not recommended to avoid the effect of **dilution leading to false negatives**.

- **Pooling & Positivity Rates:** The ICMR has suggested **three different approaches** based on the **percentage of positive cases**. These are:
 - Pooling of samples should be done only in areas with **low prevalence of Covid-19** (initially using a proxy of low positivity of <2% from the existing data).
 - In areas with **positivity of 2-5%**, sample pooling for PCR screening may be considered only in community survey or surveillance among asymptomatic individuals, strictly excluding pooling samples of individuals with known contact with confirmed cases, Health Care Workers (in direct contact with care of COVID-19 patients). Sample from such individuals should be directly tested without pooling.
 - Pooling of samples is **not recommended** in areas or populations with **positivity rates of >5% for Covid-19**.

Source: TH